

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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PATENT NO. : 7,384,742

APPLICATION NO.: 10/524,614

ISSUE DATE : June 10, 2008

INVENTOR(S) : Jean I Montagu, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On title page, item 60 Related US Application Data, please add:

Provisional Application No. 60/404,237, filed on August 16, 2002; Provisional Application No. 60/430,299, filed on December 2, 2002; Provisional Application No. 60/476,512, filed on June 6, 2003.

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1

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(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 March 2004 (04.03.2004)

PCT

(10) International Publication Number  
**WO 2004/018623 A3**

- (51) International Patent Classification<sup>7</sup>: **G01N 33/543**
- (21) International Application Number:  
PCT/US2003/025685
- (22) International Filing Date: 18 August 2003 (18.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/404,237 16 August 2002 (16.08.2002) US  
60/430,299 2 December 2002 (02.12.2002) US  
60/476,512 6 June 2003 (06.06.2003) US
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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- Published:  
— with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:  
15 April 2004
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: SUBSTRATES FOR ISOLATING, REACTING AND MICROSCOPICALLY ANALYZING MATERIALS

(57) Abstract: An immobilizing device for biological material comprises a rigid support (12) carrying a substrate layer (20, 20') of polymer having biological immobilizing properties, e.g. for amino and nucleic acids. Substantially solid ultra-thin substrate layers (20') having a thickness less than about 5 micron, preferably between about 0.1 and 0.5 micron, and micro-porous, ultra-thin substrate layers (20') having a thickness less than about 5 micron, preferably less than 3 micron, 2 or 1 micron are shown, which may be segmented by isolating moats M. The substrate layer is on a microscope slide (302), round disc (122), bio-cassette, at the bottom of a well of a multiwell plate, and as a coating inside a tube. Fluorescence or luminescence intensity and geometric calibration spots (420) are shown. Reading is enhanced by the intensity calibration spots (420) to enable normalization of readings under uneven illumination conditions, as when reading by dark field, side illumination mode. The reference spots are shown being printed simultaneously with printing an array of biological spots or with the same equipment. Methods of forming layers of the device include controlled drawing from a bath of coating composition and drying, and spinning of C-D shaped substrates. Post-forming treatment is shown by corona treatment and radiation. Adherent metal oxides (14), silica-based materials and other materials are used to unite layers of the composite. In multiwell plates the oxide promotes joining of a bottom plate (95, 95') and upper, well-defining structure (94) of dissimilar material. The oxides (14) also provide beneficial opacity to prevent light entering the glass support, for applying potential to the substrate, etc.

WO 2004/018623 A3

**COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled SUBSTRATES FOR ISOLATING, REACTING AND MICROSCOPICALLY ANALYZING MATERIALS, the specification of which:

- ☐ is attached hereto.  
☐ was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_ and was amended on \_\_\_\_\_.  
☒ was described and claimed in PCT International Application No. PCT/US2003/025685 filed on August 18, 2003 and as amended under PCT Article 19 on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §119(e)(1) of any United States provisional application(s) listed below:

<u>U.S. Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
60/404,237	August 16, 2002	Expired
60/430,299	December 2, 2002	Expired
60/476,512	June 6, 2003	Expired

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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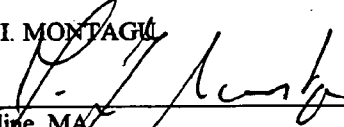
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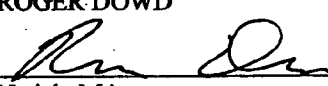
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